



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,956	10/30/2001	Hans-Joachim Quenzer	033033-002	3137
21839	7590	11/08/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			LOPEZ, CARLOS N	
POST OFFICE BOX 1404			ART UNIT	
ALEXANDRIA, VA 22313-1404			PAPER NUMBER	
			1731	

DATE MAILED: 11/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/889,956

Applicant(s)

QUENZER ET AL.

A

Examiner

Carlos Lopez

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2004 and 27 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 2-4 and 22-38 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6,8,9,11,12,15,17-20 and 41 is/are rejected.
- 7) ☒ Claim(s) 5,7,10,13,14,16,21,39 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/17/04.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 11/2/04.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: The specification does not provide antecedent basis for the glass composition recited in claim 12 .

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 9, the phrase "diamond-like" renders the claim(s) indefinite because the claim(s) include(s) elements not actually disclosed (those encompassed by "the type"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

As for claim 17, it is unclear what the recited limitation, "at least one of pressure during the annealing", seeks to define. By reciting "at least one of pressure during annealing" implies that there are multiple pressures when in fact the instant claim does not support multiple pressures. Clarification is requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1731

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6, 8-9, 11-12, 15, 19-20 and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Budinski et al (US 6,305,194). As shown in figures 7 of Budinski, a structured recessed first substrate 104 is joined to a glass-type substrate 114 in at least a partly overlapping relationship. The claimed annealing step that will allow the glass-type substrate to flow into the recess (110) of substrate 104 is deemed as the heating of the substrate 114 sufficiently to allow it to flow into recess 110 (Col. 4, lines 35ff). The disclosed annealing allows for the structuring a plurality of protrusions onto the glass-type substrate reading on the claimed limitation of "structuring a side of said second substrate". As for the claimed separation step, Budinski notes that the glass-type substrate is separated from the mold substrate 104 (col. 4, lines 51ff).

As for claims 6 and 9, the first substrate 104 is provided with a carbon layer that allows for the separation of the glass type substrate from the first substrate (Col. 5, lines 60ff). See also Col. 7, line 29, using diamond like layers. The carbon layer will be destroyed by thermal action as it is continuously used to press the glass-type substrate. Additionally in regards to claim 8, the carbon layer is deemed as an oxidizable layer when thermal energy is applied.

As for claims 11 and 20, the first substrate and third substrate (mold 102) comprises a semiconductor substrate made of graphite or molybdenum (Col. 4, lines 55ff). Additionally as noted in Col. 5, lines 60ff, the first substrate deemed as mold 104 includes a silicon substrate made of SiC, which reads on claim 12.

As for claim 15, an overpressure, deemed as mold 102 of Budinski, acts on the side of glass type substrate turned away from the first substrate.

As for claim 19, the claimed third substrate evenly applied to the side of the second substrate is deemed as mold 102.

As for claim 41, the claimed pressure chamber pressure is deemed as the pressure exerted by atmospheric pressure, which is constantly acting on the second substrate.

Claims 1, 11, 15, 18-20 and 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Nelson et al (US 6,385,997). As shown in figures 11 of Nelson, a structured recessed first substrate 104 is joined to a glass-type substrate 114 in at least a partly overlapping relationship. The claimed annealing step that will allow the glass-type substrate to flow into the recess (110) of substrate 104 is deemed as the heating of the substrate 114 sufficiently to allow it to flow into recess 110 (Col. 9, lines 1-40). The disclosed annealing allows for the structuring a plurality of protrusions onto the glass-type substrate reading on the claimed limitation of "structuring a side of said second substrate". As for the claimed separation step, Nelson notes that the glass-type substrate is separated from the mold substrate 104 (Col. 9, lines 31-32).

Art Unit: 1731

As for claims 11 and 20, the first substrate and third substrate (mold 102) comprises a semiconductor substrate made of graphite or molybdenum (Col. 9, lines 36). As for claim 15, an overpressure, deemed as mold 102 of Budinski, acts on the side of glass type substrate turned away from the first substrate.

As for claim 18, Nelson notes that grinding of the glass type material substrate in order to planish said substrate has been done in the art to cure deformation defects incurred to the processing of the glass type substrate (Col. 3, lines 29ff).

As for claim 19, the claimed third substrate evenly applied to the side of the second substrate is deemed as mold 102.

As for claim 41, the claimed pressure chamber pressure is deemed as the pressure exerted by atmospheric pressure, which is constantly acting on the second substrate.

Allowable Subject Matter

Claims 39-40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 8/17/04 and 8/27/04 have been fully considered but they are not persuasive. Applicant argues that Budinski discloses a compression molding method. Applicant notes that "Budinski does not disclose that this heating causes the glass material of the preform 114 to flow into the recess of the lower mold half 104. Rather, Budinski discloses that the preform 114 is then pressed between the

Art Unit: 1731

upper mold half 102 and the lower mold half 104 "causing the preform 114 to deform and flow generally radially outward as depicted in fig.7". It is noted that the claimed invention is an open claim that merely requires an annealing of the first substrate that will cause flow into the recess of the second substrate. Instant claim 1, does not explicitly exclude the use of an upper mold to flow the first substrate into the recess of the second substrate. Budinski's flow of the first substrate onto the recess of the second substrate is achieved by an annealing and pressing process; a process that the instant claim does not exclude.

Applicant also argues that the filing date of the foreign priority document antedates Nelson's filing date disqualifying Nelson as prior art under 35 USC 102(e). Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 1731


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL


STEVEN P. GRIFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700